

AMENDMENTS TO THE SOLICITATION

A. IFB No. PR-CI-04-10961, covering the Cooling Tower Replacement project at the U.S. EPA AWBERC Facility in Cincinnati, Ohio, is amended to provide answers to additional questions posed by prospective bidders. Offerors shall acknowledge receipt of this Amendment No. 2 in accordance with the instructions in Block 11 on page 1 hereof. The due date for receipt of proposals remains unchanged.

B. ADDITIONAL QUESTIONS AND ANSWERS

The following questions/answers pertain to Specification Section 15711, Factory-Fabricated Cooling Towers:

Question 1: 2.2 E. #1 & 2. Regarding the construction methods. Baltimore Aircoil Company (BAC) recommends specifying that the cold water basins be continuously welded. The spec allow for either bolted or welded basins. Welded basins are preferred because they are leak resistant, especially as the towers age.
 Answer: The cold water basin shall be welded type.

Question 2: 2.2 F. Casings: BAC utilizes FRP (Fiberglass) casing panels in their tower construction. FRP is utilized because it will not rust or corrode. FRP casing panels have a better long term corrosion resistance than galvanized steel panels. There are several BAC towers on the roof of this facility with FRP casing panels. Please confirm this is acceptable.
 Answer: Type of casing (Galvanized steel or FRP): This is a Contractor's option. Either one is acceptable.

Question 3: 2.2 I. Water Distribution System: The specification calls for a galvanized steel pressurized spray tree. Both BAC & Marley provide gravity type hot water distribution basins. A pressurized spray tree is not available from either BAC or Marley. There are several BAC towers on the roof of this facility with gravity type distribution basins. Please confirm this is acceptable. We also recommend considering stainless steel hot water basins.
 Answer: Type of distribution basin (Gravity or pressurized): This is a Contractor's option. Either one is acceptable.

Question 4: 2.2 M. Inlet Louvers: BAC utilizes FRP air inlet louvers. FRP inlet louvers have a better corrosion resistance than galvanized steel. There are several BAC towers on the roof of this facility with FRP air inlet louvers. Please confirm this is acceptable.
 Answer: Type of louvers (Galvanized steel or FRP): This is a Contractor's option. Either one is acceptable.

Question 5: 2.2 O. Basin Covers: Stainless steel basin covers are specified with galvanized steel hot water basins. Covers and basins should be constructed of the same material to prevent dissimilar metal corrosion.
 Answer: Basin covers shall be stainless steel as specified in Section 15711.

Question 6: 2.2 S. #2 Gear Drive: Specification calls for gear drive. BAC would like to provide belt drive in lieu of the specified gear drive. All of the existing BAC cooling towers at this facility along with countless other EPA facilities have been provided with belt drive. The advantages of belt drive include lower maintenance cost, greater reliability, reduced downtime, simplified replacement and lower operating costs.

BAC has been manufacturing towers with belt drive for over 30 years and has a great track record with this drive method. The belt utilized is a multi-banded belt that is designed for simple adjustment. Please advise if this is acceptable.
 Answer: Fans need to be provided with gear drives as per Section 15711.

Question 7: 2.2. Y - Industrial Epoxy Coating - We recommend adding a requirement for an Industrial Epoxy Coating over top of all the cooling tower galvanized steel components. The purpose of the industrial coating is to add an additional layer of corrosion protection, increasing the equipment life. The make-up water in Cincinnati has a higher pH than normal. The typical pH range for make-up is 8.5 to 8.6. The recommended maximum pH for galvanized steel is 8.3. In order to use higher pH levels the towers will need to be passivated. In lieu of passivation the towers can be provided with an industrial epoxy coating that allows for a pH up to 9.0 without passivation. I have attached a typical spec on the Industrial Epoxy Coating for your use. The spec is performance based.

Answer: Use of additional, industrial type epoxy coating is not required on this project.

Question 8: Drawing S102 Detail #7 - Cooling Tower Service Platforms: The structural drawings specify a cooling tower service platform along the air inlets of each tower. The drawings indicate that the service platform is to be built separate from the cooling tower. BAC manufactures this service platform that is supported from the cooling towers. Can the tower service platform be supported from the cooling towers?

Answer: Service platforms shall be as per structural and mechanical drawings.

The following question/answer pertains to Specification Section 15030, Electrical Requirements for Mechanical Equipment:

Question 9: 2.2 O Manufacturers – Variable Frequency Drives: We respectfully request that Safronics be added as an acceptable manufacturer for the variable speed drives. Safronics name brands GE/Fuji VFD's for the HVAC industry. Safronics meets or exceeds the specification requirements without exception.

Answer: Safronics is an acceptable manufacturer. However, the VFD shall comply with the requirements of the construction documents.

Other Questions:

Question 10: I am following up on the request to have Mueller added as an acceptable manufacturer for the Plate & Frame Heat Exchanger that is part of this project.

Answer: Mueller is an acceptable manufacturer. However, the plate and frame heat exchanger needs to comply with the requirements of the construction documents.

- Question 11: Drawing M-301– How does the engineer envision that the piping atop and above the cooling towers is supported?
 Answer: In accordance with manufacturer's recommendations, all piping above the footprint of the tower will be supported from the tower.
- Question 12: The engineer shows the connection to the base mounted pump on M301 using a full size 90 with an eccentric reducer. When you review the engineer's detail on M002 the e reducing 90 is depicted. Given the limited amount of space within the pump room the method shown on the engineer's standard detail will need to be used in order to FIT within the limited space.
 Answer: A short radius elbow needs to be used. Use of long radius does not leave enough access space around pump.
- Question 13: With only 135 days to complete the requirement for SEISMIC engineering might be better served by using an ALLOWANCE and have Cannon start on this engineering immediately.
 Answer: Refer to specification section 15241 for all seismic control requirements. Contractor is responsible for preparing all shop drawings that show all piping, equipment and required restraints/bracings.
- Question 14: Are we assuming correctly that all hangers at and around the cooling towers and pump room need to be hot dipped galvanized?
 Answer: Yes, all hangers at and around the cooling towers and pump room need to be hot dipped galvanized.
- Question 15: The heat trace power requirements will be much greater than the (2) 3kw (208v) and (2) 1 kw (120v) circuits provided. Suggest providing a 208v heat trace control panel with main breaker and 30ma GFEP breakers with alarm contacts and a contactor controlled by ambient sensing "T"stat. (Spec. calls for line sensing "T"stat which is not recommended with the variety of pipe sizes and flow paths.)
 Answer: A heat trace control panel and the kW requirement are shown on drawings. Ambient type thermostats are acceptable.
- Question 16: Does 4" domestic CW (reduces to 1") require heat trace?
 Answer: The 4" domestic CW line does not need heat tracing.
- Question 17: Does condenser H2O supply and return ever shut down? If so, we recommend heat trace. Or is it drained?
 Answer: During free cooling operations, only one tower will be operational and the related piping, as per construction drawings, needs to be heat traced. The remaining 4 towers and associated piping need to be drained during the winter season.
- Question 18: Are simple GFEP breaker alarm contacts acceptable for communicating with BMS?
 Answer: Simple GFEP breaker alarm contacts are acceptable. Coordinate with the controls manufacturer for communication with BMS.
- Question 19: P&I drawing has notes on (3) valves indicating "Closed for winter". Does this mean that all piping for C/T #5 requires tracing?

Answer: Yes, that is correct.

– End of Amendment No. 2 –